

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Crops Research Division
Beltsville, Maryland

SEPTEMBER 1962

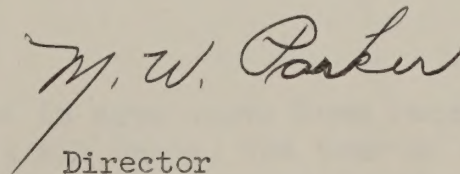
MEMORANDUM TO THE STAFF OF THE CROPS RESEARCH DIVISION
(For Administrative Use Only)

NOTES FROM THE OFFICE OF THE DIRECTOR

I had the pleasure of meeting many of you at the American Society of Agronomy Meetings which were held at Cornell University, August 20 to 23. The caliber of papers given was excellent and our staff made many commendable contributions. We have also had excellent reports from the AIBS meetings which were held in Corvallis, Oregon, August 27 to 30. You will be interested in knowing that the Division authorized 181 of our staff to attend these two national meetings. We are confident that attendance at such meetings is a most stimulating experience for our research staff. To hear reports on the latest developments in science, and to discuss their significance to your problems is both beneficial and enlightening. New approaches to the most vexing problems are often developed through interchange of ideas with fellow scientists.

We had expected to be able to report on our FY-63 appropriations in this issue of our Notes; however, the Congress has not completed its deliberations on the Department of Agriculture and Related Agencies Appropriation Act, 1963.

We hope that you have had a good season for your research. Here at Beltsville we have had an opportunity to study drought responses. The Metropolitan area of Washington has a deficit of 7.5 inches of rainfall so far for the summer, so we are much more appreciative of the problems that our staff encounters in the arid regions.


Director

NOTES OF GENERAL INTEREST

Dr. H. A. Rodenhiser, Deputy Administrator, Farm Research

Dr. H. A. Rodenhiser has been appointed Deputy Administrator, Farm Research, to fill the vacancy created when Dr. T. C. Byerly accepted the position of Administrator, Cooperative State Experiment Station Service. Dr. H. A. Haller replaces Dr. Rodenhiser as Assistant Administrator, Farm Research. Dr. E. R. Goode, Jr. replaces Dr. Haller as Assistant to Administrator, Farm Research. Dr. Goode was formerly Assistant Director, Animal Disease and Parasite Division.

Proposals for Foreign Travel

Problems concerning foreign travel proposals have become complex and involved. Consolidation of requests within the Division and of requests from the several agencies of the Department for final review and approval in the Office of the Secretary, set limitations on the advance time necessary for submissions. Also this procedure sets limitations on the length of time in advance of planned foreign travel that individuals can be given firm approval. Such approval can be given only after the 45 day (AM 127.1) mandatory limit for all consolidated Department submissions to the Office of the Secretary. Your attention is again called to the Division memorandum on meetings and foreign travel under date of June 18, 1962, requiring that requests for foreign travel be submitted through your Branch 10 weeks in advance of the date of beginning travel. This is a minimum lead time you must observe to have foreign travel requests included in submissions to the Department for final approval. Late requests cannot be honored after consolidated lists are presented.

Graduate Work and Advanced Degrees

Many of the Crops Research staff are to be commended for their efforts to advance their academic training by taking graduate courses supporting research in their assigned field of work. Each semester we have approved approximately 50 tour of duty schedules to permit attendance at regular classes in graduate schools. A number of current Crops Research employees have completed degrees while working on a full time research program. Two recent Ph.D's are Dr. Walter Gentner, Crops Protection Research Branch, with the degree from George Washington University, and Dr. Marion Simpson, Cotton and Cordage Fibers Research Branch, with the degree from the University of Maryland. Congratulations to both, and to others whose names may not have been presented at this writing.

Non-Standard Tours of Duty

Requests for non-standard tours of duty have in some cases been received after the revised schedule is in effect. In all cases, the tour of duty should be firmly established by proper approval and recorded in advance. This is important inasmuch as it relates to timekeeping, fiscal matters of pay, and could even become a critical issue in establishing when an employee is in duty status. Get the approval in advance by submission of the proper forms, and in case of changes submit revisions prior to any change in your

tour of duty. This is an important consideration from the employee's standpoint as well as good administration. (Reference AM 402.1)

Crops Research Working Program Guide of Research Activities

Many in the Division have long recognized the need for a working guide for use as a current ready reference to identify individuals, locations, areas of work, and organizational responsibility. Such a directory is now being prepared. The first section will treat the organizational pattern through the Division Office, Branches and Investigations Units, most of which are located at Beltsville. A second section will be organized alphabetically by States giving local address, the Branches, the Investigations Units, abbreviated phrases identifying areas of work, and the names of those conducting the research. The directory will soon be processed and copies provided to Beltsville and field locations for administrative use. The processed copies will be frequently updated to keep them current.

Crops Protection Research Branch Field Day

More than 200 representatives of industry and State and Federal laboratories attended the Field Day at Beltsville on July 11 and 12. Fifty-one companies, 9 universities, as well as a number of agencies of the Federal government were represented. Dr. Cullinan welcomed the group to the Plant Industry Station and Dr. Rodenhiser, Deputy Administrator, discussed "A Century of Progress in Agricultural Research" in the Plant Industry Auditorium. The group then toured weed research plots in the field by bus during the remainder of the first day. During the morning of the second day the group visited the nematology laboratories and greenhouses, and the greenhouses of the Growth Regulator and Antibiotics Investigations where they heard reports of research under way. Also, they inspected the new laboratory facility being constructed for Pesticide Investigations - Behavior in Soils, as well as facilities and equipment used in connection with weed control research. The afternoon of the second day was free for visitors to review the research program in detail with individual staff members.

100th Anniversary of USDA Recognized at Mandan, North Dakota

As part of the Centennial celebration of the U. S. Department of Agriculture, the Northern Great Plains Field Station, Mandan, held a field day on June 13. Attendance was estimated at 2500 people, mostly farmers. These visitors were shown grazing management, range land reclamation, grass breeding, and bench terrace investigations in progress at the station. These programs of research are conducted by scientists of the Crops Research Division and the Soil and Water Conservation Research Division in cooperation with the North Dakota Agricultural Experiment Station. A short speaking program featured Dr. B. T. Shaw and North Dakota Experiment Station Director A. G. Hazen, and included other federal and state officials.

Soviet Tobacco Delegation

A nine-member USSR Tobacco Delegation visited Beltsville on August 21. At the same time former Assistant Secretary Frank Welch led the American counterpart team in a visit to the tobacco growing districts of the USSR.

The Russian delegation later visited a number of locations in the burley producing area around Lexington, Kentucky and the flue-cured tobacco producing area in the vicinity of Raleigh, North Carolina.

Seminar in Executive Development

Dr. Victor R. Boswell, Chief of the Vegetables and Ornamentals Research Branch, attended the first of the new Seminars in Executive Development from July 15 to 20, held at Gaithersburg, Maryland. Dr. Boswell was one of three persons appointed to work with Departmental leaders in evaluation of this new undertaking.

PROGRAM CHANGES AND ASSIGNMENTS

Two new Investigations Units have been established in the Crops Protection Research Branch. One, Pesticide Investigations - Behavior in Soils, and the second, Pesticide Investigations - Metabolism in Plants.

The Pesticide Investigations - Behavior in Soils will be headquartered at Beltsville in a new laboratory now being completed. This unit will be concerned with herbicides, nematocides, fungicides, growth regulators, and other pesticides in soils in relation to their performance. The research will involve the determination of the movement of pesticides from soils and into plants as affected by the chemical and physical properties of pesticides in soils; the determination of the chemical changes in pesticides which take place in and on soil; and the determination of the effects of micro-organisms, soil properties, and environmental factors on the movement and persistence of pesticides. Dr. T. J. Sheets is the Leader of this new Investigations Unit, having transferred to Beltsville in January 1961 from Stoneville, Mississippi. Dr. Philip C. Kearney, a biochemist, joined this unit on June 15 after spending a year in the Department of Biochemistry at Michigan State University on a post-doctoral fellowship. Dr. Donald D. Kaufman who received his Ph.D. degree from Ohio State University in June, joined this group on July 9. Dr. Kaufman will be concerned with the microbiological aspects of the behavior of pesticides in soils. A fourth scientist, a plant physiologist, will be employed for the unit later this year.

The Pesticide Investigations - Metabolism in Plants, will be located in a new laboratory to be constructed at Fargo, North Dakota. This new laboratory will be concerned with the metabolism of pesticides in plants, animals, and insects and will be occupied by staff members of the Crops Protection Research Branch of Crops Research Division, the Animal Husbandry Research Division, and the Entomology Research Division. It is anticipated that 40 professional staff members will occupy the laboratory following completion in February 1964. Bids for the new laboratory were opened on August 2. Dr. Charles R. Swanson, who was formerly in weed control research at Beltsville and who has been a member of the Botany Department at North Dakota State University at Fargo, rejoined the Crops Research Division on July 2 and will be stationed at Fargo where he will become part of the CR staff in the new laboratory.

Dr. Harry C. Lane has joined the staff of the Pioneering Research Laboratory for Plant Physiology at Beltsville. During the past year he has been on leave from the Texas Agricultural Experiment Station, Lubbock, while conducting research under an ARS Postdoctoral Research Associateship at Beltsville.

Dr. Michael J. Kasperbauer is the second recipient of an ARS Postdoctoral Research Associateship in the Plant Physiology Laboratory. He will study the physiological aspects of the degree of pigment conversion required for a given flowering response.

Dr. J. M. Kaper, formerly of the Biochemisch Laboratorium, Rijksuniversiteit Leiden, the Netherlands, and now a member of George Washington University staff, is studying the physical and chemical properties of plant viruses in the Pioneering Laboratory for Plant Virology at Beltsville. This research is cooperative with George Washington University.

Dr. Robert C. Leffel, Associate Professor, University of Maryland for the past five years, returned to Crops Research Division on July 2 to assume responsibility of Investigations Leader for Clover Research, Forage and Range Research Branch, Beltsville. This is the position left vacant upon retirement of Dr. E. A. Hollowell early in 1962. Dr. Leffel's formal education includes the B.S. degree received from University of Maryland in 1948, and M.S. and Ph.D. degrees received from Iowa State University in 1950 and 1952, respectively. Upon completing the Ph.D. degree, Dr. Leffel was employed by USDA at Beltsville to do breeding and genetics research on soybeans. In 1957 he resigned this position to join the research and teaching staff of the Department of Agronomy, University of Maryland. While with the University of Maryland, 1957 to June 1962, Dr. Leffel's research was concerned with fundamental genetic and breeding studies of red clover. He is author and has shared authorship of a number of research papers in the general area of soybean and forage crops breeding.

Mr. Donald Burdick, formerly chemist, Forage and Range Research Branch, U. S. Regional Pasture Laboratory, accepted an intra-ARS transfer effective June 24 as chemist for the Eastern Utilization Research and Development Division, Wyndmoor, Pennsylvania.

Dr. Alfred Jones, Geneticist, reported for work on April 2 at the Georgia Coastal Plain Experiment Station, Tifton, to conduct research on sweetpotato cytogenetics and development of disease resistant sweetpotato breeding stocks as part of the Potato Investigations in the Vegetables and Ornamentals Research Branch. Dr. Jones was formerly employed in cotton genetics at North Carolina State College, where he received his Ph.D. degree.

Dr. Casimir Jaworski, Soil Scientist, was appointed on June 11 to conduct research studies on the relationship of nutrition on disease susceptibility in vegetable transplant crops and related studies at Tifton, Georgia. Dr. Jaworski recently received his Ph.D. degree in the Soils Department at Rutgers University.

Dr. Charles B. Davey, Soil Scientist, who has been conducting soil microbiological studies for control of soil-borne plant diseases in the Vegetables and Ornamentals Research Branch at Beltsville for the past six years, resigned on June 23 to accept a position in the Soils Department at North Carolina State College, Raleigh. In his new position, Dr. Davey will have both teaching and research responsibilities. Dr. William A. Ayers, Microbiologist, has been appointed to succeed Dr. Davey and will assume his duties at Beltsville in the near future. Dr. Ayers received his Ph.D. degree at the University of Wisconsin and has been conducting research with the Brooklyn Botanic Garden; he was leader of the Kitchawan Laboratory located at Ossining, New York.

Dr. Robert W. Hougas, Agent (Geneticist) in Potato Investigations in the Vegetables and Ornamentals Research Branch, Madison, Wisconsin, resigned on March 30. He is now Assistant Director of the Wisconsin Agricultural Experiment Station.

Dr. J. Robert Wall, Geneticist of the Vegetable Breeding Laboratory at Charleston, South Carolina, has resigned effective August 31 to accept a position in the Department of Zoology of the New Orleans Branch of Louisiana State University, where he will teach courses in biology.

Mr. Gerald Libman has recently been appointed as a Plant Pathologist on a part-time basis in the Tomato and Cucurbit Investigations to conduct research on bacterial spot of peppers. Mr. Libman is conducting his doctoral research problem at Beltsville as part of his graduate program at George Washington University.

For several years Dr. James P. San Antonio has been conducting investigations in persistence and plant toxicity of agricultural chemicals in soil in the Vegetables and Ornamentals Research Branch. Upon transfer of those studies to the Crops Protection Research Branch, Dr. San Antonio remained with the Vegetables and Ornamentals Research Branch and is now engaged in Mushroom and Microbiological Investigations.

Mr. Alma M. Wilson, Plant Physiologist, Forage and Range Research Branch, Davis, California, was transferred to Pullman, Washington effective June 18. Mr. Wilson's research assignment at Pullman will be concerned with basic physiological behavior of forage plants under specific environmental stresses as encountered under range conditions of the Pacific Northwest.

Dr. George C. Martin, who recently completed his Ph.D. degree at Purdue University, has been appointed to the position of plant physiologist at Wenatchee, Washington where he will work as a member of a team doing research on pear decline.

Mr. H. A. "Jerry" Skoog, Research Agronomist, was transferred from burley tobacco production research, Greeneville, Tennessee, to Beltsville on June 3. He has assumed responsibility for an expanded breeding program to develop disease resistant varieties of Maryland tobacco, with most of the breeding studies conducted at the State Tobacco Station near Upper Marlboro.

Mr. William C. Shuey has been appointed research leader at the Spring and Durum Wheat Quality Laboratory which was recently transferred from Beltsville to Fargo, North Dakota. Mr. Shuey will be directing studies to evaluate wheat quality with the aim of guiding breeders in making selections of spring wheat varieties for the 9-state spring wheat producing area, and will conduct basic research on factors underlying wheat quality. Mr. Shuey has been with General Mills, Inc. since 1948; first as an experimental miller at Wichita, Kansas, and since 1952 as director of the company's physical testing section at Minneapolis. He obtained his B.S. degree in chemistry at Wichita University and has done graduate work at Wichita and the University of Minnesota.

Dr. Stanley G. Jensen was appointed as plant pathologist on July 16 to conduct research on cereal diseases which are related to insects. He is stationed at the Northern Grain Insects Research Laboratory at Brookings, South Dakota. Dr. Jensen obtained his B.S. and Ph.D. degrees at the University of Nebraska.

Dr. Richard D. Durbin, formerly assistant plant pathologist, University of Minnesota, St. Paul, has been appointed to conduct research on oat diseases in cooperation with the Department of Plant Pathology, University of Wisconsin, Madison. Dr. Durbin received his graduate training at the University of California, Berkeley, and has been working mainly in the area of physiology of host-parasite interaction.

TRAVEL ITEMS OF INTEREST

Mr. H. M. Beachell, Cereal Crops Research Branch, returned to Beaumont, Texas on July 25 from a trip to Southeast Asia. He was in the Philippines, Taiwan, Thailand, and Japan for about two months. Mr. Beachell spent most of this time at Los Banos, Philippines, conferring with scientists in the International Rice Research Institute where a comprehensive rice research program is being started. He spent a few days in each of the other countries conferring with rice research scientists.

Dr. H. A. Lamey, Cereal Crops Research Branch, Baton Rouge, Louisiana, made a trip to Latin American from July 14 to August 4 to take notes on rice varieties in cooperative trials being conducted in Central and South America. He took hoja blanca and blast notes on nurseries in Colombia, El Salvador, Costa Rica, Nicaragua, and Guatemala.

Dr. W. Q. Loegering made a trip to Mexico and Central America in June and July. He attended the Second Annual Meeting of the Caribbean Division of the American Phytopathological Society in Antigua, Guatemala, where he functioned as Chairman of the APS International Cooperation Committee and conferred with cooperators in the International Rust Nursery Program. He also visited Mexico, Costa Rica, and Honduras, where he conferred with cooperators concerning the International Rust Nurseries and the overall rust research program.

Dr. G. A. Wiebe attended and participated in a Workers Conference on barley genetics at the University of Saskatchewan on July 14 and 15.

Dr. Warren C. Shaw was on loan to the Department of Defense during April and May for a thirty day assignment. Most of the time was spent in South Viet Nam as an advisor to the Department of Defense.

Dr. F. P. Cullinan, Associate Director of Crops Research Division, represented the United States as one of the three member-country delegates at the XVth International Horticultural Congress to be held in Brussels, Belgium from August 31 to September 8. Other U. S. delegates are Dr. R. J. Seibert of Longwood Gardens and Dr. H. B. Tukey, Sr. of Michigan State University. Three other Crops Research staff members are participating in the Congress: Dr. Donald Scott, Small Fruits Investigations; Dr. Neil Stuart, Ornamentals Investigations, both located at Beltsville; and Dr. Cornelius Shear, Tree Nut Investigations at Bogalusa, Louisiana. While in western Europe, all will visit a number of horticultural research stations and laboratories conducting work of mutual interest.

HONORS AND AWARDS

Honor Awards for CR People at Sylvan Theater, Washington, D.C., May 18, 1962.

DISTINGUISHED SERVICE AWARD:

Dr. John W. Mitchell, for distinctive leadership in conducting and stimulating research on plant growth regulators and antibiotics including fundamental research on their translocation and movement in plants and the development of applied uses of these materials.

SUPERIOR SERVICE AWARDS:

Dr. Franklin A. Coffman, for research achievements in winter oat improvement and in initiating uniform oat-testing nurseries that have brought national and international recognition to the oat improvement research conducted by the Department.

Mrs. Regina O. Hughes, for outstanding performance in preparing interpretive, accurate, original, detailed illustrations of plants representing many species, and in abstracting scientific papers, and translating foreign publications.

Dr. Edmund B. Lambert, for superior research accomplishment and leadership in the field of mushroom physiology, nutrition, diseases, and commercial culture.

Dr. Warren C. Shaw, for outstanding leadership in research on the control of weeds in agronomic crops, for the development of techniques for the evaluation of chemicals as potential herbicides, and for stimulating weed research in the United States.

Dr. Orville A. Vogel, for success in combining science and practice to improve wheat, and for developing semidwarf wheat for the Pacific Northwest; for initiative and dynamic spirit in research; and for developing improved machines for use in small grain breeding.

Knoxville Fiber and Spinning Laboratory, Knoxville, Tenn. (Unit Award)
For significant contributions to cotton genetics and breeding research by developing effective equipment and techniques for determining fiber properties and spinning value from miniature samples of fiber.

LENGTH OF SERVICE AWARDS:

Forty or more years of Federal service as of May 15, 1962:-

Henry D. Barker
Philip Brierley
Gerald A. Seaton
Gustav A. Wiebe
Lawrence R. Lytton
Roy W. Nixon

Dr. H. A. Borthwick, chief plant physiologist of the Plant Physiology Pioneering Research Laboratory, ARS, and Sterling B. Hendricks, chief scientist of the Mineral Nutrition Laboratory, ARS, were co-recipients of the Hoblitzelle Award which was presented to them at Renner, Texas on May 16. The award, including a \$10,000 honorarium, is granted by the Texas Research Foundation annually to scientists for their outstanding contribution to American agriculture during the preceding 4-year period. Drs. Borthwick and Hendricks received the award for their joint research into how light-sensitive plant pigment controls plant development.

Dr. H. A. Borthwick was also the recipient of the Norman Jay Colman Award presented to him by the American Association of Nurserymen at their annual meeting held at Denver, Colorado, on July 23. Dr. Borthwick received the award for his valued contribution in the field of horticultural research. Norman Jay Colman was the first Secretary of Agriculture.

Dr. Glenn W. Burton, Forage and Range Research Branch, Tifton, Georgia, is the recipient of the first Crops and Soils Research Award made by Ford Almanac. This is one of several Ford Farm Efficiency Research Awards given in 1962. The award was based on Dr. Burton's outstanding achievements in genetics and breeding research of warm-season grasses adapted to southeastern United States.

Dr. E. V. Abbott, in charge of the U. S. Sugarcane Field Station, Houma, Louisiana, recently received an industry outstanding service award for his many contributions to the sugar industry. The award was presented by F. A. Graugnard, Jr., chairman of the West St. James Field Day Committee on behalf of the sugar industry. Dr. John A. Hunter, President of Louisiana State University in Baton Rouge, took part in the presentation ceremonies.

Dr. James E. McMurtrey, Jr., leader of Tobacco Investigations, was honored July 30 by the University of Tennessee Agricultural Experiment Station at the Summer Field Day program at the Tobacco Experiment Station, Greeneville. Tribute was paid to Dr. McMurtrey for his many scientific contributions in tobacco research over a period of 46 years. Dr. Webster Pendergrass, Dean of the University of Tennessee College of Agriculture, presented an "easy" chair as an honorarium and conferred the appropriate title of "Mr. Tobacco" on Dr. McMurtrey in recognition of his many contributions through tobacco research.

RETIREMENTS

Dr. John W. Carlson, Research Agronomist, Forage and Range Research Branch, retired from his position in Forage Seed Investigations at Logan, Utah on May 31 after 25 years of service with USDA. Dr. Carlson is well known for his research in alfalfa seed production which helped to better understand the complex interrelations of damage by harmful insects to declining seed yields. He authored and shared as coauthor several papers bearing on this subject. Dr. and Mrs. Carlson's place of residence will continue to be Logan, Utah.

Mrs. Irene Wheeler of the Crops Research Division Business Office retired on August 4 after 19 years of government service. Most of the time was spent in Crops Research and predecessor units. Many will remember her helpful service which was always given in a most personable manner.

Dr. Charles Dreschler, mycologist in the Vegetables and Ornamentals Research Branch, retired May 31 after more than 45 years of continuous service in the Department. He is internationally known for his classic works in mycology, and a holder of the Department's Distinguished Service Award.

NECROLOGY

Dr. R. N. Jeffrey, Principal Plant Physiologist, Tobacco Investigations, Tobacco and Sugar Crops Research Branch, Beltsville, died suddenly on July 17 at the age of 56. Dr. Jeffrey was nationally recognized in the field of tobacco biochemistry and plant physiology, and was frequently consulted by governmental and industrial research organizations. Except for a brief period that he worked at General Foods (1934-36) and Firestone (1946 to 1949), Dr. Jeffrey devoted 24 years to intensive tobacco research. At Beltsville, Dr. Jeffrey initiated studies leading to improved methods of separation of the tobacco alkaloids, participated in the studies of the biosynthesis and degradation of tobacco alkaloids, and was co-leader in the study of effect of air pollution on tobacco. Currently he had the broad responsibility to develop and carry out the quality evaluation program dealing with all types of tobacco produced in the United States. Dr. Jeffrey was a member of numerous scientific organizations and an author of more than 30 publications. He was well liked by all his associates and those who knew him. He was always friendly, willing to help and to give advice. He is survived by his wife, Dr. Helen L. Jeffrey, a biochemist at the National Institutes of Health, a brother, W. W. Jeffrey of Oil City, Pennsylvania, and a sister, Helen, of Pasadena, California.

Dr. Andrew Leon Havis, Leader of Stone Fruit Investigations, Fruit and Nut Crops Research Branch, Beltsville, died suddenly on August 9 at the age of 53. Dr. Havis joined the research staff of USDA at Beltsville in March 1943 to conduct research on stone fruits. From his work and that of his associates at Department field laboratories in this country, a number of new varieties of peaches, plums, and cherries have been developed that are now grown throughout the United States. Dr. Havis is both nationally and internationally known for his scientific contributions in the fields of plant physiology and breeding and genetics. He has published more than a hundred papers. He was a member of the American Society for Horticultural Science and the American Pomological Society, of which he served as president in 1957-58. Dr. Havis leaves his wife Eleanor, a daughter, Kathryn, and a son, A. Lee Havis, a student at the University of Connecticut. Also his mother, Mrs. Lucy Havis of Lubbock, Texas; two sisters, Mrs. Elton Smith of Arlington, Texas, and Mrs. Maribel Williams of Houston, Texas; and two brothers, Melvin of Lubbock, Texas, and John of Amherst, Massachusetts.

